



Ship's Configuration Data Meets Maintenance Data

Record Type 6 Design

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OVERVIEW

- Background
- Issue Resolution
- Considerations
- Record Type 6 Concept
- Status
- Summary

Background

TODAY'S ENVIRONMENT

- Ship's Configuration Managers Database
 - CDMD-OA
- Various Maintenance Databases
 - 3M, ICAS, PMS, etc.
- Shipboard Environment
 - Maintenance Database Contains Configuration and Maintenance Data
- Shore Environment
 - No Link Between Maintenance and Ship's Configuration Data

Background (continued)

- **Lack of Visibility From Shore Perspective**
Causes:
 - Single Ship Data vs. Ability to Assess Material Condition & Readiness Across a Battle Group or Fleet-Wide
 - Multiple & Inconsistent Assignment of Hierarchical Structure Codes & Naming Conventions Hampers Ability to Create Meaningful Metrics
 - Determine Health of Ship's Equipment
 - Perform Predictive Maintenance
 - Conduct Reliability Studies
 - Determine Maintenance Cost

Bottom Line: *No ability to readily assess the material condition of Ship, Battle Group & Fleet.*

Issue Resolution

Resolution: Merge Maintenance & Configuration Data into a *single* Environment

- Optimal Solution:
 - Use SAP R/3 Functional Location Structure to:
 - Standardize Hierarchical Structure Codes
 - Standardize Naming Conventions
 - Track Total Maintenance Cost
- ...The Challenge...***

 - **Schedule Delays:** due to ERP Convergence

Issue Resolution (cont)

Intermediate Solution:

- Develop New Record Type in CDMD-OA to Link Maintenance, Configuration & Logistics Data
 - Create New Numbering Structure to Provide the Maintenance Community with a Functional Systems Engineering View
 - Capture Relationships Between Equipment Material Condition & Associated Logistics Products
 - Produce Meaningful Metrics that Reflect Material Condition by War-fighting Area

Issue Resolution (cont)

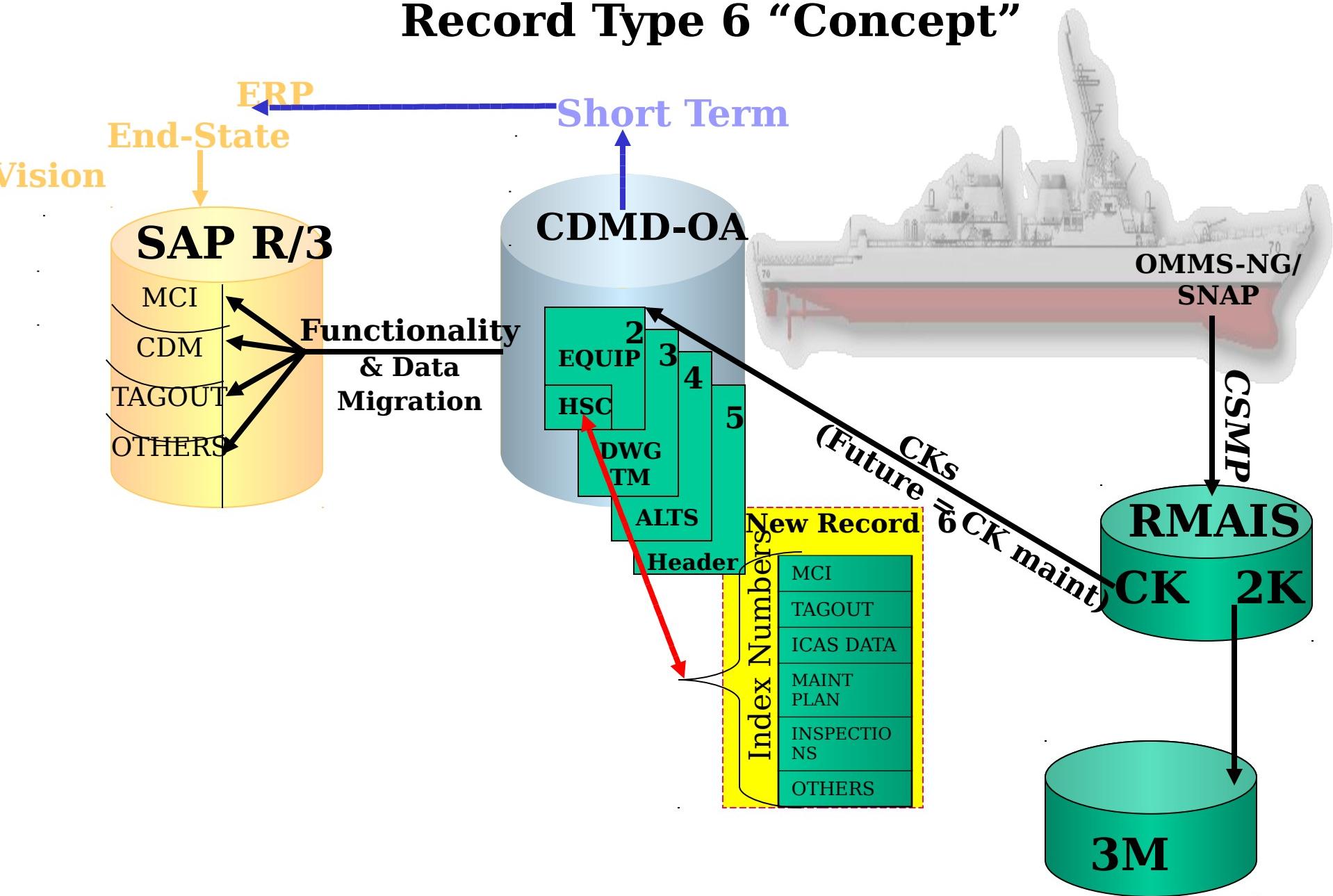
Intermediate Solution (continued)

- Design Record Type 6 with ERP End-State Vision
 - Use SAP R/3 Terminology & Data Characteristics
 - Use New Numbering Structure as Basis for Expanding SAP R/3 Functional Location.
- Record Type 6 Data Integrity
 - Only designated maintainers and users identified by SEA 05N will have access to/visibility of RT6.
 - Record Type 6 will be transparent to all other users

Considerations

- Limited Scope of Programming CDMD-OA.
 - Creation of Type 6 Record (data element place holders)
- Data Integrity
 - No designated Data Manager for Type 6 information.
 - CDMs not funded to maintain RT 6
- Potential Modifications & Data Stream Loading
 - CK form, RAD, CSMP, RMAIS, SNAP/OMMS
 - Various policy modifications/approvals required
 - Additional servers required to prevent slow performance in CDMD-OA

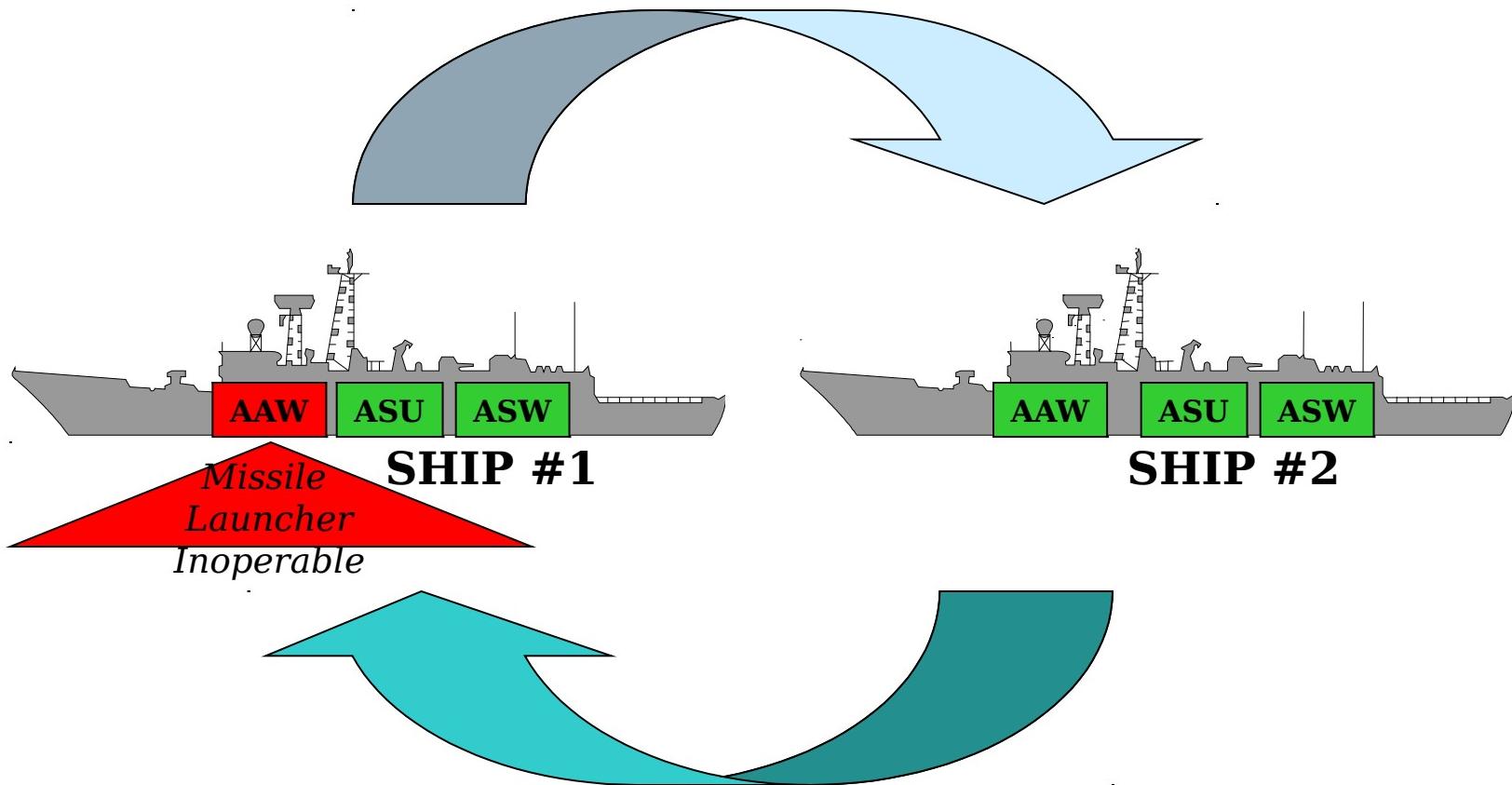
Record Type 6 “Concept”



Status

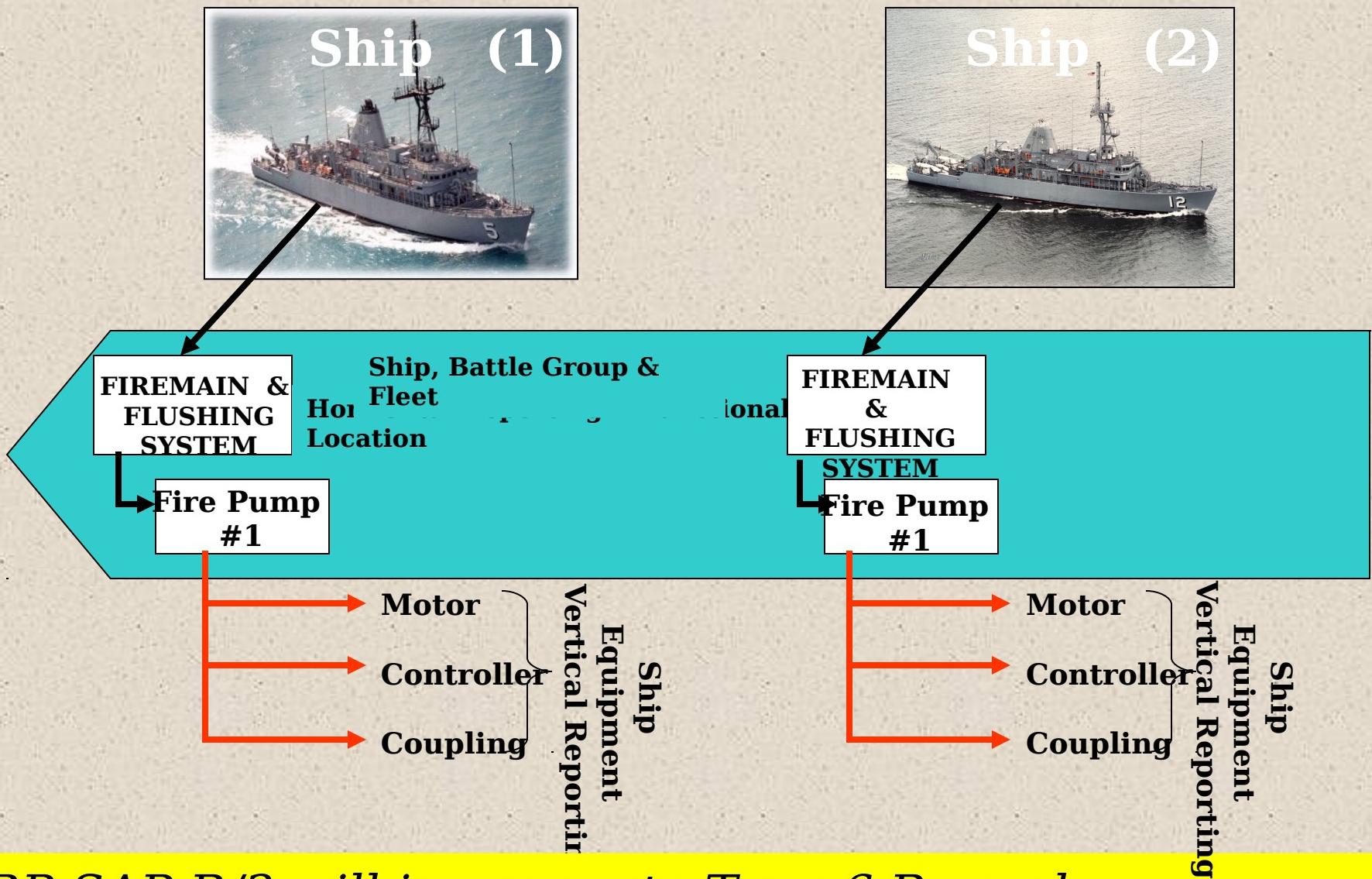
- Funding received from maintenance community
- Functional Requirements Document (FRD)
 - Jointly developed by SEA 04L5 & SEA 05N Technical Staff (April 2003)
- Software Requirements Specification (SRS)
 - Draft developed by CDMD-OA programming staff with SEA 05N technical staff input (May 2003)
 - Database design (tables & data relationships) complete for back-end operations
 - SEA 05N technical staff extracting data for database design testing
 - ECD for Record Type 6 design is 30 September 2003

End-State Vision



Bottom Line: Based upon Ship Equipment Assessment earlier decision can be made to deploy Ship #2 vice Ship #1

SUMMARY



ERP SAP R/3 will incorporate Type 6 Record Methodology into Functional Location Design